

Application Number 10/731,867

Amendment in response to Office Action mailed September 7, 2007

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): An implantable medical device comprising:

a plurality of interconnected modules, ~~each of at least one of~~ the modules comprising a ~~respective one of a plurality of housings~~ metallic housing;

an overmold that at least partially encapsulates each of the ~~modules~~ housings;

a therapy delivery element to deliver a therapy to a brain of a patient; and

control electronics to control the delivery of the therapy by the therapy delivery element,

wherein the therapy delivery element and control electronics are located within one of the modules,

wherein the ~~housings~~ modules are horizontally distributed at respective locations of the overmold, and separately encapsulated by the overmold, ~~and~~

wherein the overmold is formed such that a surface of the overmold is concave along at least one axis prior to manipulation of the implantable medical device such that the surface is adapted to be implanted proximate to a cranium of the patient, and

wherein the overmold does not encapsulate at least a portion of the metallic housing.

Claim 2 (Original): The implantable medical device of claim 1, wherein the surface of the overmold is concave along two axes.

Claim 3 (Original): The implantable medical device of claim 1, wherein the overmold is flexible.

Claim 4 (Original): The implantable medical device of claim 1, wherein the overmold comprises silicone.

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Claim 5 (Original): The implantable medical device of claim 1, wherein the overmold comprises at least two materials.

Claim 6 (Previously Presented): The implantable medical device claim 1, wherein the surface of the overmold is concave such that the surface is adapted to conform substantially to the cranium.

Claim 7 (Previously Presented): The implantable medical device of claim 1, wherein the surface of the overmold is concave such that the overmold conforms substantially to an arc, and a radius of the arc is within a range from 4.5 to 9.5 centimeters.

Claim 8 (Original): The implantable medical device of claim 7, wherein the radius of the arc is approximately equal to 7 centimeters.

Claim 9 (Previously Presented): The implantable medical device of claim 7, wherein the surface comprises a first surface of the overmold, and a second surface of the overmold that is adapted to be implanted distal from the cranium substantially conforms to the arc prior to manipulation of the implantable medical device.

Claim 10 (Original): The implantable medical device of claim 1, wherein the modules are positioned within the overmold in one of a triangular configuration and a linear configuration.

Claim 11 (Canceled).

Claim 12 (Currently Amended): The implantable medical device of claim 1, wherein the overmold does not encapsulate a portion of each of at least two metallic housings of the plurality of interconnected modules. ~~housings that are adapted to be implanted proximate to the cranium of the patient.~~

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Claim 13 (Currently Amended): The implantable medical device of claim 1, wherein ~~the housing of each of the modules comprises a surface that is adapted to be implanted proximate to the cranium, and the~~ a surface of the housing that is adapted to be implanted proximate to the cranium ~~of at least one of the modules~~ is concave along at least one axis prior to manipulation of the implantable medical device.

Claim 14 (Currently Amended): The implantable medical device of claim 13, wherein the at least one of the modules that comprises the metallic housing comprises a control module that includes control electronics, and the surface of the housing of the control module is concave along two axes.

Claim 15 (Currently Amended): The implantable medical device of claim 13, wherein the at least one of the modules that comprises the metallic housing comprises a power source module that includes a battery with a wound coil construction, and the surface of the housing of the power source module and the wound coil battery are each concave along one axis prior to manipulation of the implantable medical device.

Claim 16 (Currently Amended): The implantable medical device of claim 13, wherein the at least one of the modules that comprises the metallic housing comprises a power source module that includes a battery with a foil pack construction, and the surface of the housing of the power source module and the foil pack battery are each concave along one axis prior to manipulation of the implantable medical device.

Claim 17 (Currently Amended): The implantable medical device of claim 13, wherein ~~the~~ at least one of the modules comprises a recharge module that includes a recharge coil for inductively receiving energy, and ~~the~~ a surface of the housing of the recharge module and the coil are each concave along two axes prior to manipulation of the implantable medical device.

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Claim 18 (Previously Presented): The implantable medical device of claim 13, wherein the surface of the housing is concave such that the surface is adapted to conform substantially to the cranium.

Claim 19 (Original): The implantable medical device of claim 13, wherein the surface of the housing is concave such that the surface conforms substantially to an arc, and a radius of the arc is within a range from 4.5 to 9.5 centimeters.

Claim 20 (Original): The implantable medical device of claim 19, wherein the radius of the arc is approximately equal to 7 centimeters.

Claim 21 (Previously Presented): The implantable medical device of claim 19, wherein the surface of the housing comprises a first surface of the housing, and a second surface of the housing that is adapted to be implanted distal from the cranium conforms substantially to the arc.

Claim 22 (Previously Presented): The implantable medical device of claim 1, wherein the therapy comprises stimulation.

Claims 23-27 (Canceled).

Claim 28 (Currently Amended): The implantable medical device of claim 1, wherein the plurality of interconnected modules comprises at least two modules, each of the modules comprising a metallic housing, at least two of the housings are metallic.

Claim 29 (Currently Amended): The implantable medical device of claim 28 ~~1~~, wherein ~~the at least two of the housings are~~ is hermetic and formed of titanium or stainless steel.

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Claim 30 (Currently Amended): An implantable medical device comprising:

a plurality of interconnected modules, ~~each~~ at least one of the modules comprising a ~~respective one of a plurality of metallic housings~~ housing;

a flexible overmold that at least partially encapsulates each of the modules; housings;
a therapy delivery element to deliver a therapy to a brain of a patient; and
control electronics to control the delivery of the therapy by the therapy delivery element,
wherein the therapy delivery element and control electronics are located within one of the
modules,

wherein the overmold is formed such that a surface of the overmold that is adapted to be
implanted proximate to a cranium of the patient is concave along at least one axis prior to
manipulation of the implantable medical device, and

wherein the flexible overmold is configured to allow relative motion between the
plurality of interconnected modules.

~~wherein the surface of the overmold is concave such that the overmold conforms
substantially to an arc, and a radius of the arc is within a range from 4.5 to 9.5 centimeters.~~

Claim 31 (Previously Presented): The implantable medical device of claim 30, wherein the
housings are horizontally distributed at respective locations of the overmold, and separately
encapsulated by the overmold.

Claim 32 (Canceled).

Claim 33 (Previously Presented): The medical device of claim 1, further comprising a power
source located within the housing of one of the modules.

Claim 34 (Previously Presented): The implantable medical device of claim 30, wherein the
therapy comprises stimulation.